

REMARKS

Upon entry of the present Amendment, claims 1-8, 38, 41, 42, 44, 45 and 49 are all the claims pending in the application. Claim 38 is amended, and new claim 49 is added. No new matter is presented.

To summarize the Office Action, claims 1, 2, 5-8, 41 and 44 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Mantell (U.S. Patent No. 6,189,993), and claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mantell in view of Bain (U.S. Patent No. 4,521,786). Further, the Examiner objects to claims 38, 42 and 45 for informalities, but indicates that these claims would otherwise be allowable if the informality objection is overcome. The outstanding rejections and objections are addressed below.

Claim Objections

As noted above, claims 38, 42 and 45 stand objected to for informalities. In particular, the Examiner contends that the recitations “the number of gradation” should be changed to “a number of gradation”. The Examiner further suggests changing “gradation level” to “gradation levels”.

Applicant notes that claim 38 is presently amended consistent with the Examiner’s suggestion. Accordingly, the objection to claim 38 is believed to be overcome by this amendment, and claim 38 should therefore be allowable. Likewise, claims 42 and 45 should be allowable at least for reasons stated in the Office Action.

Claim Rejections - 35 U.S.C. § 102

With respect to the rejection of claims 1, 2, 5-8, 41 and 44 under 35 U.S.C. § 102(e) as allegedly being anticipated by Mantell, Applicant respectfully traverses and submits that Mantell fails to disclose all the features of these claims, as evidenced by the following.

For instance, claim 1 defines an ink jet recording apparatus comprising, *inter alia*, a drive signal generator for generating a drive signal including a plurality of drive pulses, on every unit print cycle; a basic recording mode for recording a dot having a size which is selected from one of a plurality of sizes, in a basic unit pixel which is associated with a unit recording area corresponding to the unit print cycle; and a high-resolution recording mode for recording a dot in a fine unit pixel, a plurality of fine unit pixels being arranged within the unit recording area in the main scanning direction. Claim 1 further recites the feature of the same drive signal is used in each of the basic recording mode and the high resolution recording mode.

Applicant respectfully submits that Mantell does not suggest *at least* these features of claim 1. In this regard, Applicant notes that Mantell relates to an ink jet printer that has a plurality of recording modes. In a mode for recording a finer image, whether dots having an identical size or not is controlled while reducing the traveling speed of the carriage. See Mantell at col. 8, lines 12-28. In other words Mantell teaches controlling whether a dot is recorded or not with respect to each unit pixel, a size of which is uniquely determined for each of the recording modes.

However, the fine unit pixel in modes shown at 26B-26D of Fig. 3, which the Examiner apparently points to as “higher levels of grayscale”, cannot correspond to the claimed high

resolution recording mode. For instance, assuming that each dot in the recording modes shown at 26B-26D (see Fig. 3) of Mantell's printing technique is recorded on a fine unit pixel in the manner claimed, Mantell cannot properly be interpreted as disclosing the *same drive signal* that would be used in the recording mode shown at 26A (i.e., showing the first level of grayscale) is applied with respect to the area surrounded by the dashed line corresponding to the claimed unit pixel. See Mantell at col. 5, line 57 - col. 6, line 8 and Fig. 3.

That is, in the recording mode shown at 26A, the drive signal capable of recording a single dot in the unit pixel is used, and in the "higher" levels of grayscale (i.e., the recording modes shown at 26B-26D), a *different* drive signal capable of recording *two or more dots* in the unit pixel would necessarily have to be used. Accordingly, Mantell does not disclose the feature of the same drive signal is used in each of the basic recording mode and the high resolution recording mode, as set forth in claim 1, in combination with the remaining elements of the claimed ink jet recording apparatus.

Reconsideration and withdrawal of the rejection of claim 1 is therefore requested. Further, Applicant submits that claims 2-8, 41, 44, and 49 are allowable at least by virtue of depending from claim 1, as well as by virtue of the features recited therein.

Claim Rejections - 35 U.S.C. § 103

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mantell in view of Bain. Without commenting substantively, Applicant submits that claims

3 and 4 are allowable at least by virtue of depending from claim 1, as well as by virtue of the features recited therein.

New Claim

In order to provide additional claim coverage merited by the scope of the present invention, Applicant is adding new claim 49, which depends from claim 1 and recites the feature of the scanning mechanism moves the recording head at the same speed for both of the basic recording mode and the high-resolution recording mode. Support for this limitation is found at least at page 30, lines 6-12 of the specification.

Applicant submits that claim 49 is allowable at least by virtue of depending from claim 1, and by virtue of the features recited therein.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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